

SYSTEM AND METHOD FOR RECOGNIZING ZERO-AMPLITUDE SYMBOLS IN  
A QAM SIGNAL AND DIGITAL RECEIVER INCORPORATING THE SAME

ABSTRACT OF THE DISCLOSURE

A system for, and method of, recognizing zero-amplitude symbols in a quadrature amplitude modulated (QAM) signal and a digital receiver incorporating the system or the method. In one embodiment, the system includes: (1) an amplitude detector that extracts a candidate symbol from the signal and locates the candidate symbol relative to a constellation of symbols and (2) a zero-amplitude symbol interpreter, associated with the amplitude detector, that recognizes the candidate symbol as being a zero-amplitude symbol when the candidate symbol is closer to an origin of the constellation than to symbols proximate thereto.